

## INTERNATIONAL SEARCH REPORT

PCT/EP2005/003086

## A. CLASSIFICATION OF SUBJECT MATTER

IPC 7 F16L15/00

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 F16L

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, PAJ

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 2002/017788 A1 (KRUG GERHARD ET AL) 14 February 2002 (2002-02-14)	1, 5, 6, 9, 17, 19, 21, 24, 25, 27, 33, 34
Y	paragraph '0042! - paragraph '0048!; figures 1A, 1B	2-4, 7, 8, 18, 20, 32
X	US 4 384 737 A (REUSSER HANS E) 24 May 1983 (1983-05-24)  column 8, line 18 - column 9, line 24; figure 5  ----- -/--	1, 3, 5, 6, 9, 17, 19, 21, 24-26, 32



Further documents are listed in the continuation of box C.



Patent family members are listed in annex.

## \* Special categories of cited documents:

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- \*X\* document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
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Date of the actual completion of the international search

16 June 2005

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Name and mailing address of the ISA

European Patent Office, P.B. 5818 Patentlaan 2  
NL - 2280 HV Rijswijk  
Tel. (+31-70) 340-2040, Tx. 31 651 epo nl,  
Fax: (+31-70) 340-3016

Authorized officer

Mauriès, L

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## C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	US 2003/067169 A1 (CHURCH KRIS L) 10 April 2003 (2003-04-10) page 4, paragraph 39 - paragraph 41; figures 1,2	2-4,7,8, 18
Y	US 4 915 426 A (SKIPPER CLAUD T) 10 April 1990 (1990-04-10) figures 1,3	20
Y	US 2 992 613 A (BODINE ALBERT G) 18 July 1961 (1961-07-18) column 3, line 59 - column 4, line 45; figure 3	32
A	US 1 942 518 A (PROTIN EDWARD J) 9 January 1934 (1934-01-09)  page 1, line 79 - page 2, line 18; figures 1,3	1-3,19, 21,24, 25,32
A	PATENT ABSTRACTS OF JAPAN vol. 1995, no. 06, 31 July 1995 (1995-07-31) & JP 07 063289 A (NIPPON STEEL CORP), 7 March 1995 (1995-03-07) abstract	1-3,24, 25
A	US 3 224 799 A (BECKERT HENRY J ET AL) 21 December 1965 (1965-12-21) column 3, line 67 - column 4, line 27; figure 5	7,8

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